



TO THE

MAYOR, ALDERMEN, and BURGESSES

OF THE

BOROUGH OF GLOSSOP.

(THE URBAN SANITARY AUTHORITY.)

GENTLEMEN,

In presenting the past year's Report, I have to mention with regret the fact that through the lamented death of the late Dr. Rhodes, no complete report of the whole year can be presented. The statistical part, however, I am able to present for the whole year. I entered upon my duties on the 1st of June, 1898.

The Borough of Glossop is situated on the slope of the Peak of Derbyshire. Though at a considerable elevation above the level of the sea, it is mainly in a valley surrounded by hills. The St. James's and All Saints' Wards are in the valley, through which the Glossop Brook flows to join the Etherow. Brookfield and Woolley Bridge, portions of Hadfield Ward, are at the junction of Glossop brook with the Etherow, while the main portion of Hadfield Ward is on the Etherow, separated by the elevation of the Castle hill, which forms a sparsely inhabited break of about a mile between the two portions of the Borough. Padfield, a portion of Hadfield Ward, is, with the exception of Platt street, Padfield, which is at the foot of the hill, on an elevation overlooking Hadfield proper.

The district is on a subsoil of boulder clay, with occasional deposits of sand and gravel overlaying shales and millstone grit.

The trade of the district is chiefly textile. There is a large paper works, also a large print works and a smaller iron works, with a few works for the making of spring mattresses. Most of the people, however, are employed in cotton spinning and weaving mills, chiefly of large size.

The water supply of St. James's and All Saints' Wards is mainly derived from the Swineshaw reservoirs belonging to the Corporation, some parts of Whitfield having a separate supply.

The water supply of Hadfield is derived from reservoirs belonging to Lord Howard of Glossop.

The supply of water for the Borough is barely sufficient.

There is an excellent General Hospital provided by the munificence of the late Mr. Daniel Wood, and at Gamesley, beyond the limits of the Borough, there

is an Infectious Hospital belonging to the Corporation. I hope further on to give reasons for the enlargement of the latter hospital.

A sewage scheme for the Borough is in progress, and is fast approaching completion. It is intended to deal with the sewage by a process of precipitation.

The Infectious Diseases Notification Act is in force in the Borough. In my capacity of Medical Officer under the above Act, I have been over the whole of the Borough.

In July I made a special visit to Hadfield, in company with the Sanitary Inspector, and inspected untrapped and badly trapped drains and other insanitary conditions in Hadfield main road, Boulder fold, Old Hall fold, Bank street, Bank bottom, Brosscroft, and Station road. An account of sanitary action taken by the Inspector will be given later in the report.

At the time of my appointment as Medical Officer of Health we were in the midst of an epidemic of scarlet fever. As the infection of scarlet fever is carried about by the air, and likewise adheres to solid objects, as well as being conveyed by such fluids as milk, etc., the important objects to be aimed at are complete isolation of the patient (as the infection is virulent, *very* complete isolation), thorough disinfection of clothing, walls, furniture, etc., and special care in the case of attacks in or near farm houses.

As illustrating the advantage of isolation by removal to hospital, I may mention four cases that occurred soon after my appointment. Two cases were notified in back to back houses, Nos. 54 and 52, Woolley Bridge. They were promptly removed to Hospital, and since then Woolley Bridge and Brookfield have been free from scarlet fever infection. Two cases occurred in one house in Platt street, Padfield, in a very crowded house. One was removed to Hospital, the other, unfortunately, was removed by death. Since then Padfield has been free from scarlet fever infection.

In Hadfield, St. James's, and All Saints', where the cases were more scattered and could not all be removed, the epidemic continued two months longer, and isolated cases occurred up to the end of the year.

For dealing with a wide-spread epidemic, and especially for dealing with simultaneous epidemics of more than one disease, larger hospital accommodation than we now have is required.

Disinfection of apartments has been attended to by the Sanitary Inspector.

As to disinfection of clothing, my instructions have comprised boiling, the use of chemical disinfectants, washing, and two or three days' exposure to fresh air. These measures, however, have had to be entrusted to persons who could not be superintended, and the one truly efficient agent—boiling—cannot be enforced in the

case of all garments. It is therefore highly desirable that the Borough should possess a steam disinfecter, to be worked, under skilled superintendence, by workmen accustomed to the work.

As to milk, the public have been advised to boil the milk they use, and any cases occurring in a farm house have been very carefully isolated. As far as I can ascertain cases were notified to me at only one farm house. In that case the milk was kept in an outbuilding about twenty yards from the house, and the person nursing the patients never went near the milk or dairy utensils. Cases occurring in a fish and chipped potato shop were promptly removed to Hospital, and the sale was stopped for a fortnight. The house was afterwards cleaned down and white-washed. Cases occurring in an oat cake baker's house were promptly removed to Hospital, and the best measures of disinfection and isolation possible adopted. Exclusion from school of children from infectious houses during the infectious period was ordered, and certificates given for the schoolmasters.

In August and September we had an epidemic of diarrhœa. Heat, dryness, decomposable matter, and perhaps the presence of some germ or germs, are the exciting causes of this disease. The conditions favourable to it are so similar to those of typhoid that they may be dealt with together.

A notice was published in the local papers, detailing the necessary precautions.

In the beginning of October, typhoid fever began to assume an epidemic form, and in the week beginning October 16th and ending October 22nd, there were twenty-four cases notified. This epidemic, which was fairly synchronous with October, beginning to subside in November, was no doubt due to heat and dryness (the heat of the subsoil rises later than that of the external air) acting on a prepared soil, and disease germs from the sporadic cases that we have kept having from time to time. No *common* milk, water, or general food supply could be found to account for it, though inquiries were made both by me and by the inspector.

The epidemic was very generally distributed over the Borough, but one fact was noticeable. In the portion of St. James's Ward to the north of the railway, comprising probably about fifteen hundred inhabitants, there were three cases of typhoid notified throughout the whole year, two of them being notified since my appointment. Of these two, one had been a servant in another part of the town, and only returned home on feeling ill; the other was a slater and plasterer, whose business took him into different parts of the town.

This part of the town is composed mainly of better class property. There are some water closets, though not very many, the sewerage is fairly complete, and yards are pretty generally paved and well attended to. The comparative immunity of this district seems to lead up to the cause of the epidemic.

The conservancy system of sewage removal has prevailed in Glossop. Pail closets are very general, but there are still privy middens, and, worse still, a few cess-pools of doubtful construction.

Back yards are as a rule unpaved. In the most favourable case, that of the pail closet, the system necessitates collections of faecal matter in the neighbourhood of the town. The pails cannot be kept perfectly clean, and there is always a danger, when the pails are emptied at night, that unpaved yards may be contaminated with faecal matter. Soil contaminated with faecal matter is now known to be the best breeding-place for the typhoid germ. Furthermore, a considerable amount of sewage matter has been discharged into the brook. The experiments of Messrs. Laws & Andrewes indicate that emanations from water in a sewer are not so dangerous as used to be supposed, but the conditions of water in a stream are different from those that obtain in a well-constructed sewer. The waters of a stream are in direct communication with the subsoil water of the surrounding district, and there is no doubt that in conditions of diminished flow, sewage matter in a stream may contaminate the subsoil water and through it the subsoil, and, more or less, the soil when the water level rises.

The Inspector has ascertained that during the hot weather people have drunk very largely from wells, on account of the water being cooler than the tap water. Though no particular well can be pointed out as the cause of the disease, the possibility of contamination of wells through the subsoil water is evident.

It is to be hoped that the completion of the sewage scheme will remedy some of those defects; but the paving of yards with impervious material, the general adoption of water closets, and measures to enforce cleanliness in the surroundings of houses, are further requisites. In Stockport the change from privy pits to water closets, even in £5 houses, effected a reduction of typhoid fever from 1.92 per cent. to 0.56 per cent. In this connection the County Medical Officer's Report for 1897, pages 6 to 11, may be advantageously consulted.

On October 14th a notice was inserted in the local papers, advising boiling of milk and water in view of the epidemic of typhoid.

In cases occurring in private houses I personally examined the drains, closets, and ash pits.

The total number of infectious diseases notified in the Borough during the year was 379. Of these, 249 were scarlet fever, 85 typhoid, 10 diphtheria, 26 erysipilas, 5 membranous croup, and 4 puerperal fever. 43 cases of scarlet fever and 20 of typhoid were removed to Gamesley Hospital. Of these, 2 cases of scarlet fever and 2 of typhoid died.

Larger accommodation and more ready assent to removal on the part of parents would facilitate the stamping out of epidemics.

All the cases notified during my time were visited by me personally, with the exception of a case at the workhouse, in which case I had the assurance of the Medical Officer that thorough isolation and disinfection were being carried out.

In July a complaint was made as to the condition of the water in ponds in the Park. I made an investigation, and reported to your Committee. The matter is still pending.

A complaint having been made of a nuisance from the sulphate of ammonia manufactured at the Gas Works, I got into communication with Mr. Herbert Porter, Inspector of the Alkali Acts for this district. On October 3rd, 1898, I visited with him property adjoining to the works, to ascertain if paint, &c., had been affected by the fumes. I stated to you his recommendations as to improvements in the working. I also recommended that, as a question might be raised as to whether the nuisance arose from the sulphate of ammonia plant or from the lime removed from the purifiers belonging to the gas manufacture, you should order your Inspector to see as to the regular removal of the lime. You will note that the removal of lime from the purifiers does not come under the Alkali Acts. You were pleased to give an order accordingly. I believe that, as a result of our efforts, the nuisance has been largely abated.

In September I was consulted by the Co-operative Society as to a nuisance arising on the boundary line between them and one of their neighbours. I visited the place, and am pleased to think that, as a result of my advice, the matter has been put right without appeal to your Committee.

In November specimens from the three public water supplies of the Borough were submitted for analysis to Mr. Carter Bell, Borough Analyst. His report was favourable in each case. At the same time six specimens of milk were submitted to the same analyst. Of these one was found to be first-class, three good average milk, and two poor, but sufficiently good to be passed as pure.

The Inspector reports 1,166 nuisances abated, and three seizures of unwholesome food, which was destroyed.

The births during the year were 296 males, and 284 females, making 580 in all. The greatest number in one month was in July, when there were 57. The birth-rate for the Borough during the year was 24·6 per thousand.

The deaths amongst infants under one year were 104, making a mortality of 179·3 per thousand.

The deaths for the whole year, as you may see from the form accompanying this report, were 436, from the following causes :

Scarlet Fever	...	...	...	...	...	...	...	...	12
Diphtheria	...	...	...	...	...	...	...	...	1
Membraneous Croup	...	...	...	...	...	...	...	...	5
Enteric or Typhoid Fever	...	...	...	...	...	...	...	...	15
Erysipilas	...	...	...	...	...	...	...	...	1
Measles	...	...	...	...	...	...	...	...	2
Diarrhoea and Dysentery	...	...	...	...	...	...	...	...	21
Phthisis	...	...	...	...	...	...	...	...	35
Bronchitis, Pneumonia, and Pleurisy...	...	...	...	...	...	...	...	...	77
Heart Disease	...	...	...	...	...	...	...	...	37
Injuries	...	...	...	...	...	...	...	...	10
All other Diseases	...	...	...	...	...	...	...	...	220

There were sixteen inquests in the Borough during 1898.

The census population of the wards was: All Saints', 7,326; St. James's, 8,055; and Hadfield, 7,033. Adding 1 per cent. to the population each year for seven years, we get: All Saints', 7,850; St. James's, 8,632; and Hadfield, 7,537. From the last we must deduct 500 for removals in consequence of stoppage of machinery at Waterside Mills, making the number 7,037. The deaths at the three institutions I calculate by the total population of the Borough, 23,519, though the deaths at the Workhouse include persons from the rural district.

Taking the above-mentioned population and the deaths, we get the death-rate as follows:

All Saints' Ward	Population, 7,850.....	Deaths, 116 = 14·7 per 1,000
St. James's ,, 	,, 8,632.....	,, 163 = 18·8 ,,
Hadfield ,, 	,, 7,037.....	,, 127 = 18·0 ,,
<hr/>		
The Borough.....	,, 23,519.....	,, 406 = 17·2 ,,
To this has to be added:		
Union Workhouse.....	Deaths, 20	
Wood's Hospital	,, 6	
Gamesley Hospital	,, 4	
		<hr/>
		30 = 1·2 per 1,000
		<hr/>
Total Death Rate.....		= 18·4 ,,

I am, Gentlemen,

Yours sincerely,

DUNCAN JOHN MACKENZIE, M.D.

Loch Maree House, Glossop,

January 16th, 1899.

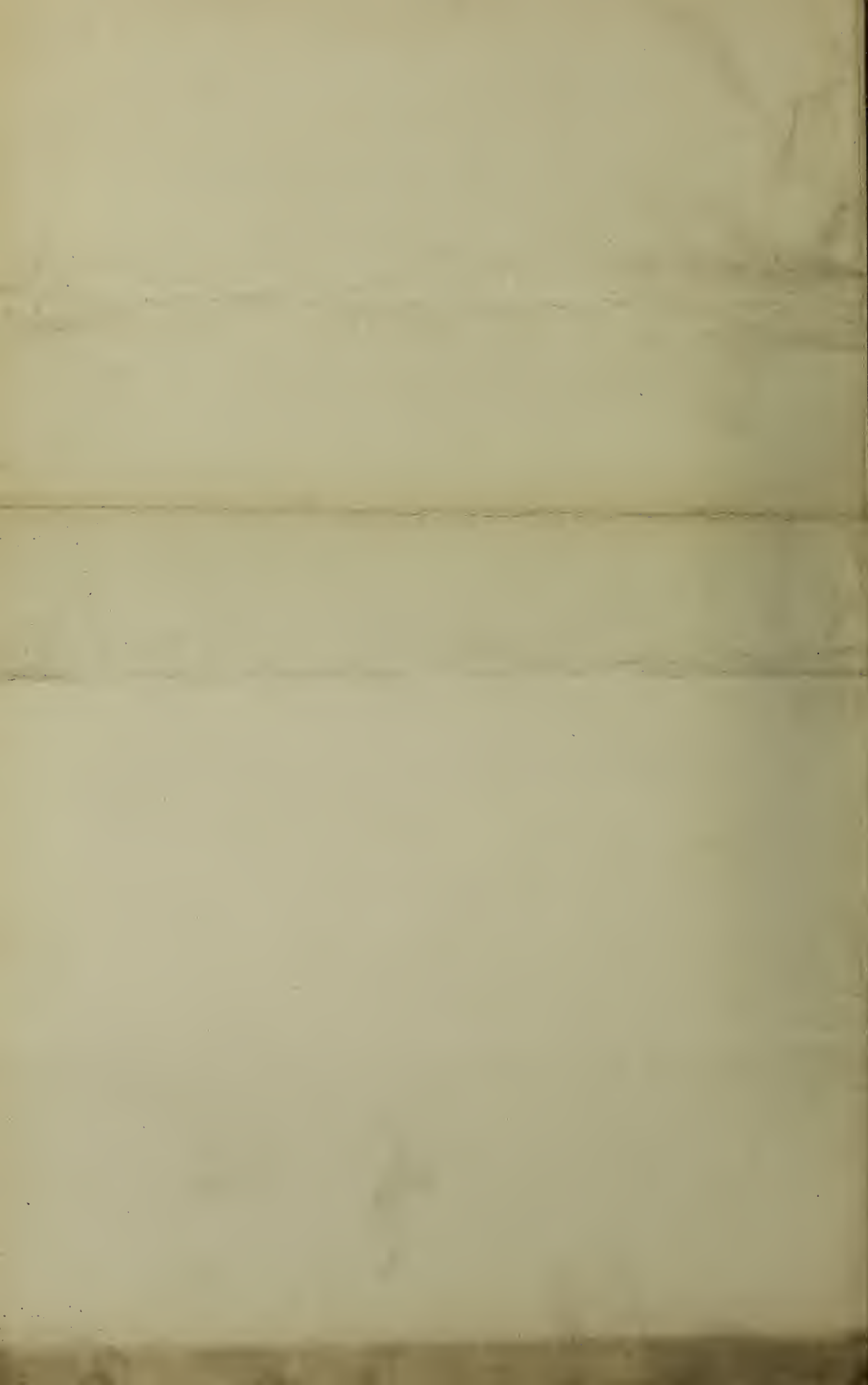


DIAGRAM SHOWING THE FLUCTUATIONS OF MORTALITY FROM THE MORE IMPORTANT INFECTIOUS DISEASES IN THE GLOUCESTERSHIRE COMBINED DISTRICT SINCE 1874

